Mr. LIZARS'

OBSERVATIONS ON LITHOTOMY.

TO

The Editor of the Medico-Chirurgical Review of London.

Sir,

Although, probably, more has been written on lithotomy than on any other surgical operation, yet, judging from the writings of our *most learned modern physicians and surgeons*, we seem to be still ignorant of its fundamental principles. I am led to these observations by two papers lately published, by Dr. Monro and Mr. Allan, in the 3d and 4th numbers of the New Edinburgh Journal of Medical Science, in which I am *obscurely* alluded to.

In the 3d number, Dr. Monro states, "Mr. Allan informed me, that he had met with an instance, in which there were two stones lodged within the bladder. One of these was readily removed by the forceps, but the other could not be extracted at the time; it, therefore, occurred that, as the groping for a considerable time with the forceps in the bladder proves extremely dangerous, it would, at the moment, be more prudent to desist from further attempts to extract the stone, which was then firmly grasped by the contracted portion of the bladder, and that the stone would probably come away of itself along with the urine, in consequence of the subsequent relaxation of the contracted part of the bladder."

In Number 4, the Doctor says, "since the publication of my observations on spasm of the passages for the food, the bile, and the urine, I have received the following *important* communication from Mr. Allan, surgeon, which affords a striking illustration of the spasmodic power of the bladder of urine. I WAS PRESENT AT THE OPERATION to which Mr. Allan has alluded, in the performance of which, the dexterity of the operator was no less conspicuous than his coolness and sound judgment.

IMPORTANT COMMUNICATION.

'*Letter from* ROBERT ALLAN, Esq. F.R.S. E. *Surgeon to the Royal Infirmary, and Lecturer on Surgery in Edinburgh, to* ALEXANDER MONRO, M.D. F.R.S. E. &c.

'57, *York Place, June 20th*, 1826

'DEAR SIR,

"You will no doubt *recollect* of having been *present*, ten years ago, at an operation of lithotomy, performed by a *young* surgeon, on which occasion I acted as HIS PRINCIPAL ASSISTANT. The bladder was soon cut into, and a stone of some magnitude readily extracted; but we were conscious of the presence of another stone, although the operator, after the repeated introduction of the forceps, failed to extract it. The difficulty of extraction arose from the bladder spasmodically contracting upon the stone, and thus preventing the forceps from coming into contact with it. I introduced my finger into the wound, and felt a stone above the pubis, *(pubes)* which was firmly held in this situation by the spasmodic contraction of the bladder. I could just reach the stone, and turn it round and round, but my finger was too short to dislodge it. As the *operator was not provided with a lever, or with curved forceps*, I ADVISED that the patient should not be kept longer upon the table, but that he should be put to bed, and that, as the opening was free when the spasm of the bladder was relaxed, and suppuration established, there was little doubt but that the stone would be easily extracted; whereas, by persisting in fruitless attempts to extract, the patient would be so much exhausted, that his danger would be thereby greatly increased. The patient was, therefore, laid in bed, and when I went to visit him, along with his surgeon, on the evening of the third day, I introduced my finger into the wound, and hooked out, with the utmost ease, a stone about the size of a turkey-bean, *(French or kidney bean, phaseolus)* which was lying in the inner opening. The patient recovered without one bad symptom, and *this operation I have frequently revolved in my mind, and kept the case in view, as a guide in similar circumstances.* Quære. When the incisions are free, and the *delivery* (extraction) of the stone prevented by the spasmodic contraction of the bladder, as this will not relax till the patient is exhausted, and brought into danger, *is it not the preferable practice to put the patient to bed, instead of employing force, or persisting in fruitless attempts at extraction?* I am. &c.

ROBERT ALLAN.' "

Now, Mr. Editor, what are we to think of the state of the surgical profession in this learned medical city, when we find the Professor of Anatomy and Surgery, and the *first operator* to the Royal Infirmary and *Lecturer* on *Surgery*, so ignorant of the history of lithotomy, as, from the preceding communi-

cations, we must hold them to be? What must these gentlemen have taught for upwards of twelve years to their pupils, and into what dilemmas must many of their pupils have been brought, when performing this operation? The practical rule of not attempting beyond a few minutes to extract a calculus, is laid down in most distinct terms by Celsus,* by Albucasis,† by Franco,‡ by Fabricius Hildanus.§ It appears unnecessary to give any more lengthened quotations than those we have inserted below; let it suffice merely to mention the other authorities,—Covillard, Obs. Iatro-chirurgique, Observ. IV; Colot, Traité de l'Operation de la Taille, p. 178, 182; Saviard, Nouveau Recueil d'Observations Chirurgicales, Observ. CVIII. also, Observ. XLIII.; Tolet, Traité de la Lithotomie, Chap. XVII. Louis, Journal de Medecine, T. LXXXI.; Haller, Bibliotheca Chir. Tom. II.; Mangetus, Bibliotheca Chir. Tom. I.; Heister's System of Surgery, Part 2, Sect. 5, Chap. 141; Camper, London Medical Journal, Vol. 10, Part 2, p. 182, 1789; Percy, Journal de Medecine, Tome LXXIX.; Deschamps, Traité de l'Operation de la Taille, Tome IV. Now, Mr. Editor, not one of these authors, with the exception of Celsus, is mentioned by Mr. Allan in his HISTORY of the operation of lithotomy in his folio work, entitled, "Treatise on the Operation of Lithotomy," 1808. Whether Mr. Allan means to arrogate to himself the

---

* At si plures calculi sunt, singuli protrahi debent: sic tamen, ut, si quis exiguus supererit, potius relinquatur, si quidem in vesicâ difficulter invenitur, inventusque celeriter effugit. Ita longâ inquisitione vesica læditur, excitatque inflammationes mortiferas; adeo ut quidam non secti, cum diu frustraque per digitos vesica esset agitata, decesserint. Quibus accedit etiam, quod exiguus calculus ad plagam urinâ postea promovente, excidit.—*Celsus, Liber* VII. *Caput* XXVI.

† Nec calculum extrahas, sæpe enim id perdit ægrotum; dein curato vulnus, et cum sanguinis post dies aliquot sedatur fervor, et locus putrescit, ad opus tuum redi, donec calculum extraxeris.—*Albucasis, Liber* II. *Caput* LXI.

‡ M'etant quelquefois advenu, que après avoir tiré une pierre, le patient etoit tant debile, que je n'osoye plus entreprendre de le plus presser pour savoir s'il y en demeuroit point d'autres, craignant qu'il ne mourust entre mes mains. Or, ayant mis les appareils sur la playe, et bendé comme avons dit dessus je le l'essoye jusques à ce qu'il fust plus fort, et bien souvent ay trouvé que, en changeant le premier appareil, on apprest, que la pierre qui estoit demeurée estoit sortie du tout dehors d'elle même.—*Franco, Traité des Hernies, Chap.* XXXIII.

§ Atque ita consultius est, inquit, calculum frustulatim extrahere, quàm ægrum tanto dolore atque miseriâ opprimi, semperque è duobus malis minus est eligendum. Nullum addit dictus *Dn. Francus*, huc usque auctorem inveni, qui hoc modo lithotomium administrârit, sicuti reverâ multis mirum videtur, quòd æger, post factam incisionem, per quinque vel sex dies plus minùsve non attingendus, tum demumque calculi extractio instituenda sit. —*Fabricius Hildanus de Lith. Liber, Cap.* 16.

merit of this mode of operating by his *Quære*, or whether he is actually ignorant of the history of this operation, or both, requires no Œdipus to inform us. When I read these papers, I could scarcely believe that I was reading the conjoint production of two distinguished Professors.

That the operation, "en deux tems," should be always kept in view by the operator, I have invariably stated to my pupils, for in no other way can we, in many instances, save the lives of our patients. I conceive that we ought never to perform the "operation premeditée en deux tems," but that we should perform the "operation necessitée en deux tems," or combine both. We should, therefore, be prepared with a perfect knowledge of both, and commence with the premeditated intention of leaving the calculus in case of necessity.

Mr. Allan uses the innuendo phrase "a *young* surgeon," as if youth was any disparagement to an operator. I should recommend him to read Lord Chatham's reply to Mr. Walpole in 1740, every word of which will make his grey "hairs stand on end, like quills upon the fretful porcupine," unless he is *not* "made of the same stuff, and cast in the same mould as other men are." It would be well for Mr. Allan were he young, that he might have time to learn the history of his profession. "Youth is the worthier age, for young men see visions, while *old* men *only dream* dreams." The youths who have just finished their career in the dissecting-room ought to operate in half the time of those, who have neglected the use of the knife on the dead body for thirty years, and who obstinately continue to do so. "The surgeon just come from the dissecting-room, is competent to all operations. They are dissections of sound and healthy parts."

Mr. Allan, in the next place, has the generosity to state, the "operator was not provided with a lever, or with curved forceps." Now, Mr. Editor, was it not the duty of the "principal assistant," an office which Mr. Allan seems to dwell upon with feelings of pride, (for he had not then even performed lithotomy himself) to take care that every instrument was at hand before the operation was begun? With regard to his "*advice*, that the patient should not be kept longer upon the table, but that he should be put to bed," Mr. Allan surely does not mean the world to believe that *he* was the *first* who has given such an advice—he would not wish us to consider *him ignorant* that the same recommendation had been given by Celsus, and every author on lithotomy, with the exception of himself.*

---

* See Allan's Treatise on Lithotomy.

To crown this *correctly drawn-up case*, be it known to the medical and surgical world, that Dr. Monro, who has paid me the handsome compliment, that, "in the performance of the operation, the dexterity of the operator was no less conspicuous than his coolness and sound judgment"—did not witness the operation—I repeat, Mr. Editor, that Dr. Monro never saw me perform this or any other operation. He was no doubt invited to be present, but, after the hour appointed for the operation had expired, I commenced operating, (resolved never to sport with the feelings of a patient for the convenience of any gentleman) and had finished the operation, put my patient to bed, and had left the patient's house, when Dr. Monro and a young gentleman appeared on the road advancing towards me. So much for the reliance to be placed on Dr. Monro and Mr. Allan's surgical cases.

I shall now briefly mention that, within these few weeks past, I have been again compelled to perform lithotomy "en deux tems," and have deeply to regret that Mr. Allan was not present, either in the capacity of my "principal assistant," or one of my "advisers." His elegant dexterous hand, and his profound historical knowledge of this operation, would no doubt have been of prodigious service!

While on a professional visit to Brechin this summer, I was requested (on passing through Montrose) by Dr. Crab, to see a man who had been labouring under calculus for about six years, and who had been previously sounded by the Dr. so carefully, that he was confident of the presence of a calculus, and, therefore, requested me to operate (the Dr. himself having for some years past resigned the use of the knife). At the recommendation of the other medical gentlemen of Montrose, the patient was removed to the hospital for the benefit of better light during the operation, and of superior accommodation for the man. He was a tall, large-boned person, somewhat emaciated, and upwards of 60 years of age. His bowels were opened by laxative enemata, or rather the rectum was emptied by laxative enemata, and soon afterwards he was carried into the operating theatre, when, after he was secured in the ordinary way, I filled the urinary bladder with tepid water by means of a catheter, which instrument, both before the introduction of the water and afterwards, at once pointed out the presence of a stone. The catheter intended for this purpose should have an ox or pig's bladder mounted on the end, which may be termed the handle, in the same manner as is done with the common glyster-bag and pipe. The catheter should be inserted in the urinary bladder of the patient, with the pig's bladder in a flaccid

state, and then the tepid water ought to be poured into the pig's bladder, which is to be tied and gently squeezed, so as to distend moderately the urinary bladder of the patient. After sufficient water has been injected, which can be judged of only by the feelings of the patient, the catheter is to be withdrawn, and a tape tied round the penis a little below the glans. This method, when the irritability of the bladder of the patient does not prevent it, is superior to that of tying the penis some hours before operating, in order to accumulate the urine.

The staff was now inserted in the urethra onwards to the bladder, and given to Dr. Campbell, one of the surgeons of the hospital, who kindly assisted me. I then made a long incision through the skin and cellular substance, from the root of the scrotum, between the raphe of the perineum, and the ramus of the os ischii downwards, or coccygead beyond the anus, and over the fibres of the gluteus maximus muscle. The second incision was more limited superiorly or pubic, in order to avoid wounding the accelerator urinæ and erector penis muscles, but equally extensive downwards or coccygead, so as to divide some of the fibres of the gluteus maximus muscle: in this second incision, the transversus perinæi muscle was divided. One or two scratches with the scalpel, held in the same manner, as when making the first external incision, (for there appears no necessity for turning the edge of the knife upwards or pubic to the symphysis pubis, as directed by lithotomists) easily enabled me to arrive at the membranous part of the urethra, and to divide the levator ani muscle from this downwards to the bottom or coccygeal aspect of the wound, carefully avoiding the rectum. The point of the scalpel was then entered into the groove of the staff (the latter of which was now held close up to the symphysis pubis, and at right angles to the axis of the brim of the pelvis,) and carried onwards so as to cut the membranous portion of the urethra, the prostate gland, and a portion of the urinary bladder, lateralizing the knife so as to pass between the termination of the ureter and vesiculæ seminales, and depressing the rectum with the middle finger of the left hand to prevent its being wounded.* The tepid water and urine flowing copiously from the wound, I inserted my left fore-finger into the bladder, laid aside the scalpel, and conducted the forceps into the bladder, and then withdrew the staff.

I at once felt the calculus distinctly at the fundus of the

* The scalpel is much the preferable instrument for the performance of this operation, as all are or should be, familiar with its use on the dead body, before undertaking an operation such as lithotomy. If the operator considers it too short, let him have one with a longer handle. The man

bladder with my left fore-finger, and easily touched it with the forceps in their shut state, but whenever I opened them over the calculus so as to seize hold of it, I found that the blades grasped the soft bladder which retained the calculus in situ. I then tried a scoop, but with equal want of success. I regret for Mr. Allan's satisfaction, that I did not use a "*lever* or *curved forceps.*" After several fruitless attempts for five minutes, I resigned the forceps to Dr. Campbell, and after he had persevered for three minutes longer, I requested him to desist. I next untied the patient, put him to bed, and desired him to have an opiate. I now begged the medical gentlemen present to return to the operating theatre, when I explained the nature of the "operation en deux tems," and stated, that when all action had subsided, and suppuration was fairly established, the urinary bladder would offer then no resistance, and that probably the calculus would be in the mouth of the wound, or at all events, that it would be easily reached and extracted.

The operation was performed at 12 o'clock on Thursday the 5th of October, 1826, and as I had to proceed onwards immediately to Edinburgh, I begged that the patient should be bled whenever reaction had taken place, being of opinion, that after lithotomy, as after the operation of trepanning, venesection should be performed. The same precautionary means ought to be employed in all great operations. I mentioned that the calculus ought to be removed on Sunday or Monday, or whenever suppuration was fairly established. On Monday the 9th, a calculus of an oval flattened shape, and weighing three ounces and a quarter, was extracted with the forceps, a sound being previously inserted in the urinary bladder. By the last account which I received the other day, the patient was walking about, and the urine flowing along the urethra, and the wound nearly healed.

I have been thus particular in describing this case, as the steps deviate a little from those recommended by Mr. Allan and other authors on Lithotomy. I am decidedly of opinion, that had I persevered longer in attempting to extract the cal-

---

who uses Dubois' knife, or any other instrument has given up dissection, and is therefore unqualified to operate. I should recommend such surgeons, to confine themselves to the routine practice of prescribing a dose of salts. "The passion of inventing instruments so conspicuous of late years, originates with those who know not how to use the common instruments." In every dead body, with the exception of one, that either any of my pupils or myself have operated on for lithotomy, part of the vesiculæ seminales has been wounded. In one or two rare instances, the termination of the ureter has been cut. I believe that I may state, the operation has been done upwards of 100 times.

culus at the time of the operation, I would have induced such a degree of inflammatory action, as would, in all probability, have destroyed my patient. For, as my late worthy preceptor, Mr. John Bell, observes, "I fear there are few modern operations free entirely from the cruelties imputed to the apparatus major"—which fact, I deeply regret to state, every student at this school too often witnesses.

Either after the first stage of the "operation en deux tems," or "en un tems," if we may use the phrase, I conceive that no flexible catheters or tubes or tents ought to be inserted in the wound, as practised by Colot, Le Dran, and others; for, as Mr. John Bell observes, "In the old way of lithotomy, they introduced a canula into the wound, ostensibly to prevent healing, but really because they could not heal the wound." If the external incisions are free, and no mangling has been inflicted, we have nothing to fear from the urine—no infiltration will take place. To show the absurdity of fearing such an event, let us consider what Le Raoues, a celebrated lithotomist, did, who operated by cutting on the gripe. He endeavoured *not* to make the external incision correspond with the internal one, in order that the integuments might act as a valve. And he plastered up the wound with eggs and flour. And he often cured his patients in five days.

I have already stated, that venesection should be practised after lithotomy, whenever reaction has taken place, for the purpose of preventing inflammation. But if this diseased action should take place, the blood-letting ought to be repeated to syncope, and if the patient is an adult, 50 or 60 leeches should be applied to the hypogastric region: if a boy of three or four years of age from 18 to 24 leeches should be applied, and the external jugular vein opened, if one in the arm cannot be selected, in consequence of its smallness. After the leeches have dropped off, the warm bath should be used, and if pain on pressing the hypogastric region still continues, a tobacco enema should be administered, and be repeated as often as necessity requires, and as soon as its nauseating and exhausting effects have disappeared. It ought to be regulated, so as not to produce vomiting. Besides the above remedies, diluent injections of warm milk and water should be used to the wound, together with anodyne poultices and fomentations, both to the wound and to the hypogastric region. The patient ought to be kept in the warm bath until a sensible depleting or exhausting effect is produced. Blisters may be also used after the leeches.

JOHN LIZARS.

Edinburgh, 33, York Place, 10th Nov. 1826.